



E79 The Use of Lean Principles in a Forensic Environment to Facilitate Transformation

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After attending this presentation, attendees will understand how a continuous improvement technique, such as Lean, and the use of a toolkit can be used to change their processes to improve the service/product they offer to the customer and the efficiency gains they could look to achieve.

This presentation will impact the forensic science community by reducing the turnaround time (TRT) of a case, improving customer satisfaction, and reducing the cost per case/examination. Application of a continuous improvement framework can lead to more efficient outcomes for the criminal justice system.

The Biology Forensic team at the LGC Tamworth laboratory report cases for a range of English and Welsh police forces with differing contract requirements. Two of the contracts have particularly challenging TRTs for a completion of a case, typically between 4 and 14 days, depending on the type of work requested and the type of results obtained as the case progresses. TRT success prior to the Continuous Improvement project was variable and in some instances resulted in service credits (10% of the cost of a case) being paid to the customer for not meeting the required TRT. A project was set up to find a solution for dealing with these challenging TRTs in order to meet the requirements of the contract and deliver good customer service.

A team of four individuals were given one week to review the current process for reporting biology cases and design a new process to meet the challenging TRTs. The team was trained in Lean principles and the use of a toolkit and this learning was used to facilitate the process change. Data was analyzed, the current process was mapped in a flowchart, “waste” was identified in the process, and a root cause analysis was also undertaken. Once knowledge of the current process had been ascertained, a new process was designed which removed as much “waste” as possible. The proposed new process was tested and data was collected to determine whether the changes made an impact on the TRT success.

The changes made to the process did not require any financial investment or any increase in resources. The changes were largely a different way of approaching the work to reduce the waste that was present in the process. The amount of waiting time (no activity on a case) in the process was reduced and the number of handovers (movement of the case file from one individual to another) was also reduced, leading to a more efficient process. As a result of the process changes, TRT success rates for the two most challenging customer contracts improved from approximately 75% to >95%, and therefore improved customer satisfaction. The results show what a group of individuals with good knowledge of a process, the right tools, and a little time can achieve. The approach taken is part of a longer-term culture of continuous improvement and the use of Lean to improve everything that is done for the customer, to motivate staff to improve a work environment, and to make efficiency gains.

Continuous Improvement, Lean, Change